

Analysis of the Natural and Social Science Curriculum at the Elementary School Level in Indonesia

Mutiara Eka Betari

Indonesia University of Education, Indonesia

Abstract: The independent curriculum is designed to be a better future solution for education in Indonesia. This curriculum is expected to reduce the learning losses that occurred after the COVID-19 pandemic. In the independent curriculum at the elementary school level, natural science subjects are changed to natural and social science subjects. Natural sciences and social sciences are combined into one subject at the elementary level. This is due to the fact that children in elementary school tend to see everything as a whole and integrated. In addition, they are still in the concrete and simple, holistic, and comprehensive thinking stage, but not in detail. The combination of these subjects is expected to trigger children's ability to manage the natural and social environments in one unit. The aim of this research is to describe the curriculum of natural and social sciences in elementary schools including goals, content, processes, and evaluations that apply in Indonesia. This study uses the method of a literature review. Researchers collect data sourced from books, government regulations, journals, and previous research. The results of the research show that learning natural and social sciences in elementary schools focuses on the study of knowledge about living and inanimate things in the universe and their interactions, and examines human life as an individual as well as social beings who interact with their environment. The natural and social science curriculum in elementary schools includes material understanding and process skills. The learning process takes 180 hours of lessons per year. Evaluation of learning is carried out through daily assessments, midterm assessments, end of semester assessments, and end of year assessments.

Keywords: Curriculum, Natural and Social Science Subjects, Elementary School

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Introduction

Curriculum changes are necessary because the times are constantly developing and changing, so education must also be adjusted so that it can prepare the next generation to compete and adapt in an era full of progress. The Merdeka Curriculum was initially launched in the form of an emergency curriculum as the first step in implementing the curriculum during the COVID-19 pandemic. The Merdeka Curriculum is a much more concise, simpler, and more flexible curriculum to be able to support learning loss recovery due to the COVID-

19 pandemic, as stated in Kepmendikbudristek No. 56 of 2022 concerning Guidelines for Implementing Curriculum in the Framework of Learning Recovery.

In line with this, the independent curriculum within the scope of elementary schools is also echoed as a solution and design for a better future in the world of education. According to the 1945 Constitution, elementary school education refers to efforts to educate and create the life of a nation that fears, loves, and is proud of the nation and state. In addition, it also fosters a skilled, creative, virtuous, polite attitude and the ability to solve problems in their environment. Indonesian students are also required to have the competence to become democratic citizens and to become superior and productive human beings in the 21st century. In line with this, especially in the elementary school curriculum, there are several developments from various fields, one of which is the integration of natural science and social science subjects into the natural and social sciences. Natural and Social Sciences (IPAS) is a science that examines living and inanimate things in the universe and their interactions, as well as human life as individuals and social beings who interact with their environment.

In general, knowledge is defined as "a combination of various knowledge that is organized logically and systematically by taking into account causes and effects" (Big Indonesian Dictionary, 2016). This knowledge includes natural knowledge and social knowledge. Science education has a role to play in realizing the Pancasila Student Profile as an ideal picture of the profile of Indonesian students. Science helps students grow their curiosity about the phenomena that occur around them. The basic principles of scientific methodology in science learning will train scientific attitudes (high curiosity, critical thinking skills, analysis, and the ability to draw the right conclusions) that give birth to wisdom in students. As a country that is rich in culture and local wisdom, it is hoped that through IPAS, students will explore the wealth of local wisdom related to IPAS, including using it to solve problems. As a result, the primary goal of learning natural sciences at the elementary level is not how much material content students can absorb, but how much competence they have in applying what they know.

Given that elementary school-aged children still see everything as a whole and integrated whole, science and social studies learning are combined into one subject, namely natural sciences. This is also done with the consideration that elementary school-age children are still in the stage of thinking simply, holistically, and comprehensively, not in detail. Learning in elementary school needs to give students the opportunity to explore, investigate, and develop an understanding of the environment around them. So studying natural phenomena and human interaction with nature and between humans is very important at this stage. The purpose of this research is to describe the curriculum of natural and social sciences in elementary schools, including the goals, content, process, and evaluation that apply in Indonesia.

Method

This study used qualitative research methods. This study uses the method of literature review. Researchers

collect data sourced from books, government regulations, journals and previous research. The process of collecting research data is a documentation study, interviews and field observations or surveys. The data source used in this research comes from qualitative data. According to Sugiyono (2017) there are 2 types of data, namely qualitative and quantitative data. Qualitative data is data in the form of words, sentences or pictures. In this study, the data sources used came from interviews with students, teachers and school principals. In addition, qualitative data was obtained from the results of a documentation study of curriculum documents and government regulations, as well as other supporting documents. There is also data taken from direct observation. The data collection techniques used by researchers are interviews, documentation, and observation. Interviews were addressed to teachers as project facilitators to strengthen the profile of Pancasila students, school principals, and students. When conducting research data analysis, researchers used documentation techniques as material for consideration as well as evidence showing the relevance of the results obtained when conducting research.

Results

Reporting from the official website of the Directorate of Elementary Schools of the Ministry of Education and Culture, the essential thing from the Merdeka Curriculum at the elementary level is the Science subject, which emphasizes strengthening basic competencies and understanding logistics, to understand the surrounding environment, Science and Social Studies subjects are combined as Natural and Social Sciences subjects. (IPAS) and integrate computational thinking in Indonesian, Mathematics and Natural Sciences subjects.

The results of the research show that learning natural and social sciences in elementary schools focuses on the study of knowledge about living and inanimate things in the universe and their interactions, and examines human life as an individual as well as social beings who interact with their environment. The science and social curriculum in elementary schools includes material understanding and process skills. The learning process takes 180 hours of lessons per year. Evaluation of learning is carried out through daily assessments, midterm assessments, end of semester assessments, and end of year assessments.

Discussion

Goals

Science learning goals are regulated in BSKAP decision No. 033/H/KR/2022 concerning learning outcomes in early childhood education, primary education, and secondary education.

Preface

The challenges in the world of education are increasing. Science is developed to solve these challenges. IPAS is a science that examines living and inanimate things in the universe and examines human life as an individual and social being who interacts with their environment. Science education has a role to play in realizing the

profile of Pancasila students as an ideal picture of the profile of Indonesian students.

Aims

Develop interest and curiosity so that students are triggered to study phenomena that exist around humans and understand the universe and its relation to human life; play an active role in maintaining, protecting, and preserving the natural environment and managing natural resources and the environment wisely; develop inquiry skills to identify, formulate, and solve problems through real action; understand who he is, understand how the social environment he is in, and interpret how human life and society change from time to time; understand the requirements needed by students to become members of a community and nation group and the meaning of being a member of the nation and world community, so that they can contribute to solving problems related to themselves and the environment around them; and develop knowledge and understanding of concepts in science and technology and apply them in everyday life.

Characteristic IPAS

Along with the times, science is also constantly developing. What we have known as scientific truth in the past may experience a shift in the present and the future. That is why science is dynamic and is a continuous effort made by humans to uncover the truth and use it for life (Sammel, 2014). The carrying capacity of nature to meet human needs from time to time is also decreasing. The exponential increase in the human population also triggers the many problems it faces.

Many problems cannot be solved by looking at them solely through the lens of natural science or social science. Instead, a more holistic approach is needed that includes a variety of cross-disciplines (Yanitsky, 2017). Students should learn the natural sciences and social sciences to gain this understanding. need to be combined into one unit, which we then call the IPAS. Understanding science and social sciences, as well as developing process skills, are the two main components of science learning.

Content

Preface

The material in the independent curriculum is regulated in Permendikbudristek No. 7 of 2022 concerning content standards in early childhood education, basic education, and secondary education. In this regulation, IPAS is a compulsory subject at the elementary school level. In general, the development of content standards refers to the development of graduate competency standards in educational units at the basic education level, which are focused on: 1) Preparation of students to become members of a religious community; 2) Cultivating characters according to Pancasila values; 3) Development of literacy and numeracy competencies.

Scope of material

In general, the science subject matter in elementary schools is as follows: Investigations related to self-knowledge and the surrounding environment, including objects and living things, Data and Information Analysis, the life cycle and reproduction of living things; the interactions of living things; and their relation to efforts to preserve living things, substances and their uses, Sources and forms of energy, including benefits and how to save them, Waves and their uses, Magnets and electricity, Natural disasters, The solar system and the influence of the earth's rotation and revolution, Socialization and interaction to recognize values and norms in society, Geographical environmental conditions that affect biodiversity and its use in everyday life, Human behavior to meet the needs of life also The history and struggle of the nation's heroes

The learning process

The learning process applied in Indonesia is regulated in Permendikbudristek No. 16 of 2022 concerning educational process standards in early childhood education, primary education, and secondary education.

Learning planning

Learning planning is an activity to formulate learning objectives, ways to achieve learning objectives, and ways to assess the achievement of learning objectives carried out by the teacher. Lesson plans are prepared in the form of clear, simple, and flexible lesson planning documents. Lesson planning at least contains learning objectives, learning activities, and assessments in accordance with the elementary school curriculum.

Formulate learning objectives, Learning objectives are a set of competencies and the scope of learning materials. Learning objectives are formulated by considering the characteristics of students and educational unit resources. Determine learning activities, Learning activities are carried out using learning strategies that are designed to deliver high-quality learning experiences. Learning strategies are designed to provide a quality learning experience in a way that; 1) Allows for the application of material to real-world problems or contexts; 2) Encourage participation and optimize resources, and 3) Using ICT tools. Learning activities are designed to provide learning experiences by taking into account the characteristics of students, including age, level of development, level of previous abilities, physical and psychological conditions, and family background. In addition, learning activities can be carried out across subjects or across class levels according to achievements in certain phases.

Assess the achievement of learning goals, How to assess learning objectives achievement can use a variety of assessment techniques and instruments that are appropriate to the learning objectives and refer to assessment standards. Implementation of learning, The implementation of learning is carried out in an interactive, inspiring, fun, and challenging atmosphere, motivating and providing sufficient space for student creativity as well as

active participation. In this case, the teacher acts as a role model, companion, and facilitator. In the implementation of learning at the elementary school level, the learning load is arranged in the form of lesson hours.

Assessment of the learning process, Learning assessment is an evaluation of the teacher's planning and implementation of learning. The assessment is carried out by reflecting on the planning and learning processes and the results of the assessment. Assessment of the learning process can be carried out by fellow educators, heads of education units, and educators with students.

Assessment

The assessment in learning is based on Permendikbudristek number 21 of 2022. In this ministerial regulation, education assessment standards are defined as minimum criteria regarding the mechanism for evaluating student learning outcomes. Assessment is the process of collecting and processing information to determine learning needs and developmental achievements, or student learning outcomes. 1) The assessment of learning outcomes is carried out in accordance with fair, objective, and educational goals; 2) Procedures for assessing student learning outcomes include formulation of assessment objectives, development of assessment instruments, implementation, processing of assessment results, and reporting of assessment results.

There are at least two types of assessment of learning outcomes, namely formative and summative assessments; 1) Formative assessment aims to monitor and improve the learning process, evaluate the achievement of learning objectives, and collect information related to learning difficulties and student learning development; 2) Summative assessment aims to assess the achievement of student learning outcomes as a basis for determining grade promotion and graduation. Assessment of the achievement of learning outcomes compared with the criteria for achieving learning objectives.

Conclusion

Based on the explanation above, it can be concluded that the elementary school curriculum in Indonesia combines science and social studies, with the consideration that elementary school-age children still see everything as it is, intact and integrated, so learning science and social studies is simplified into one subject, namely natural sciences. This is done while keeping in mind that elementary school-aged children are still in the stage of thinking simply and concretely, holistically, and comprehensively, but not in detail. The objectives of learning science are to: 1) develop curiosity to study phenomena that exist around humans; play an active role in preserving the natural environment; and manage natural resources and the environment wisely. 2) develop inquiry skills to understand who one is, the social environment one is in, and how human life and society change from time to time; 3) solve problems related to himself and the environment around him; and 4) develop knowledge and understanding of concepts in science and technology and apply them in everyday life.

The material developed contains process skills and an understanding of science. The learning process is carried out by designing learning plans in advance, learning steps, and assessments. IPAS subjects in the independent curriculum are carried out for 180 hours of lessons per year. Science learning evaluation is carried out with various forms of assessment, which are carried out at least once in one semester. The assessment is divided into two parts: formative and summative. This assessment can be carried out during daily assessments, midterm assessments, end-of-semester assessments, and year-end assessments.

Recommendations

Based on the results of the research described above, the authors can provide recommendations to always study and understand the curriculum implemented in schools. This is not specific to teachers, principals, or school staff, but the whole community. Education is our collective task, and by understanding a curriculum, it will be easier for us to guide our children. By understanding the curriculum, we can also determine learning strategies that can highlight students' interests, talents, and achievements. In addition to studying the curriculum, we are also required to understand the stages of student development. so that all forms of activity are in accordance with the ability and age of students.

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